

Serial No.: 09/830,030  
Docket No.: 28953.7211

IN THE DRAWINGS:

The attached sheets include new Figures 28A and 28B. Figure 28A represents an additional cross section of a structure in a direction parallel to gas flow. Figure 28B also represents an additional cross section of a structure in a direction parallel to gas flow.

In Figure 28A, reference numeral 45A represents undulated wall portions, and reference numeral 45B represents flat wall portions.

In Figure 28B, reference numeral 3A represents undulated wall portions. Reference numeral 3B represents flat wall portions.

Entry of the new sheets is respectfully requested.

Attachments following last page of this Amendment:

Replacement Sheets (1 page)

REMARKS

Claims 1, 4-11, 16-18, and 34 remain herein. Claims 12-15 and 19-32 also remain herein, but are currently withdrawn from consideration. Claim 36 has been canceled. Claim 1 has been amended to incorporate the elements of former claim 36. New drawings 28A and 28B are submitted, and the specification has been amended with reference to these figures. Support for this amendment can be found throughout applicants' specification, for example, at pages 9, 18, 25, 26, and 31-32.

Applicants and their undersigned attorney appreciate the courtesies extended by Examiner Leung during the telephone interview conducted August 28, 2007. Before the interview, applicants' attorney faxed to the Examiner the proposed additional drawings "Fig. 1(b) ANNOTATED" a copy of which is attached to the Examiner's Interview Summary, mailed September 5, 2007. The arguments stated below in these remarks were, in substance, presented during the interview.

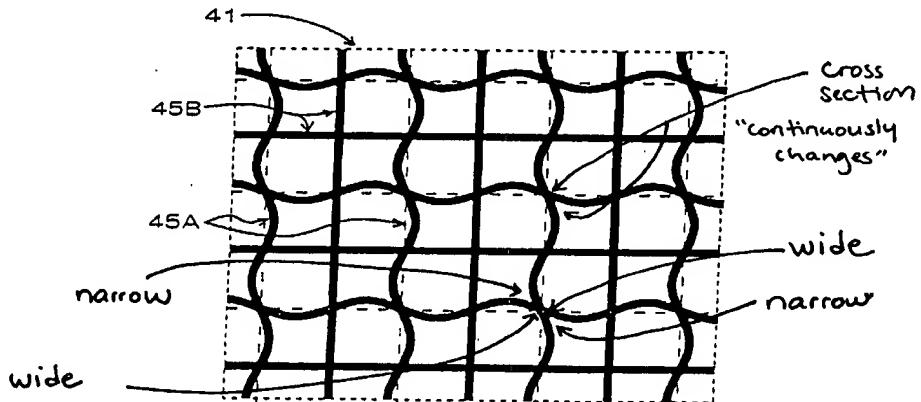
1. Claims 8, 9 and 36 were rejected under 35 U.S.C. § 102(a) over JP '580 (Hamada). Claims 8 and 9 depended from claim 36. Claim 36 has been canceled thereby mooting this rejection. Claims 8 and 9 have been amended to depend from claim 1.

Applicants discovered, *inter alia*, a honeycomb structure having a plurality of cell passages defining a cell passage direction, which passages are mutually parallel in the cell passage direction and in intersection portions of walls defining said cell passages have a predetermined pitch in cross-sections perpendicular to said cell passages and are located in a pattern, first wall face portions of said walls (excluding said intersection portions) have an undulated shape in both the cell passage direction and cross-sectional direction perpendicular to

said cell passage direction, and for each cell passage, the first wall face portions of an opposing pair of said walls extending in the cell passage direction both have an undulated shape, such that recessions and protrusions of one first wall face portion and the recessions and protrusions of an adjacent first wall face portion are positioned either (1) with the protrusions of each facing one another and the recessions of each facing one another or (2) with the protrusions of one of said wall face portions facing recessions of the other, and a second flat wall face portion located between each adjacent pair of undulated first wall face portions.

Positioned systematically is defined, for example, in page 26, lines 9-10 of applicants' specification. Applicants Fig. 4 shows an exemplary structure wherein a first wall face and an adjacent first wall face portion are undulated and wherein either (1) the protrusions of each are facing one another and the recessions of each facing one another or (2) the protrusions of one of wall face portion faces recessions of the other, and a second flat wall face portion is located between each adjacent pair of undulated first wall face portions. The undulated walls having recessions and protrusions facing in different directions, in combination with flat walls (as shown in Fig. 4 of applicants' specification) result a cross section that continuously changes and in which wide and narrow areas are formed that permit exhaust gas to flow in a non-stationary manner (see page 32 of applicants' specification, see also Fig. 28B).

FIG. 4



Exemplary cross section taken perpendicular to direction of cell passage

Hamada JP '580 does not disclose all of the elements of applicants' independent claim 1, as discussed above. Thus JP '580 is not a proper basis for rejection of applicants' claims under § 102. Nor is there any suggestions of applicants' claimed invention in JP '580. Accordingly, withdrawal of this rejection and allowance of claims 8 and 9, are respectfully requested.

2. Claims 1, 4, 6, 7, 10 and 16 were rejected under 35 U.S.C. § 103(a) over JP '580 (Hamada) in view of Gulati U.S. Patent 4,323,614 ("Gulati").

Hamada does not disclose, teach, or suggest first wall face portions of said walls excluding said intersection portions having an undulated shape in both the cell passage direction and a cross-sectional direction perpendicular to said cell passage direction, and for each cell passage, the first wall face portions of an opposing pair of said walls extending in the cell passage direction both have an undulated shape, such that recessions and protrusions on one first wall face portion and recessions and protrusions on an adjacent first wall face portion are positioned either (1) with the protrusions of each facing one another and the recessions of each

facing one another or (2) with the protrusions of one of said wall face portions facing recessions of the other, and a second flat wall face portion located between each adjacent pair of undulated first wall face portions.

Hamada describes a formation of undulated walls as well as flat walls (see for example, Hamada, Figs. 1-3). But Hamada does not disclose, teach, or suggest, a flat wall located between each adjacent pair of undulated first wall face portions. Further, Hamada teaches a structure wherein the shape of the cross-section taken at arbitrary positions along (or parallel to) the cell passage direction is the same. Accordingly, the flow of liquid within the cell passage of Hamada is a *stationary* flow. Hamada describes a structure in which recessions and protrusions face one another in both the vertical and horizontal walls, which causes problems with purification capabilities associated with a stationary gas flow, which is distinguished from applicants' claimed invention (see applicants' specification, page 29, lines 9-15).

Gulati fails to supply the deficiencies of Hamada JP '580. Gulati teaches undulated walls only in the cross section of a honeycomb structure that is *perpendicular* to the cell passage direction. Thus, a cross-section of each cell taken at arbitrary positions along the cell passage direction remains unchanged in Gulati. There is no disclosure, teaching, or suggestion in either Hamada JP '580 or Gulati of undulated walls parallel to the cell passage direction. Thus, there is no disclosure in Hamada JP '580 or Gulati or anything else in this record that would have suggested applicants' claimed invention to one of ordinary skill in this art. Further, there is no disclosure or teaching in either Omura or Gulati, that would have suggested the desirability of combining any portions of those references effectively to anticipate or render obvious applicants' claimed invention.

For all of the foregoing reasons, Hamada does not disclose all elements of applicants' claimed invention. Nor is there any disclosure or teaching in Hamada that would have suggested applicants' claimed invention. Further, there is no disclosure or teaching in either Hamada or Gulati '614, that would have suggested the desirability of combining any portions of those references effectively to anticipate or render obvious applicants' claimed invention. Thus reconsideration and withdrawal of this rejection, and allowance of all claims 1, 6, 7, 9, 10 and 16 are respectfully requested.

3. Claims 1, 4, 7, 10 and 16 were rejected under 35 U.S.C. § 103(a) over Hamada in view of JP 61-68141 (Omura) in view of Gulati.

Omura JP '141 does not disclose, teach, or suggest a honeycomb structure wherein, first wall face portions of said walls excluding said intersection portions have an undulated shape in both the cell passage direction and a cross-sectional direction perpendicular to said cell passage direction, and for each cell passage, the first wall face portions of an opposing pair of said walls extending in the cell passage direction both have an undulated shape, such that recessions and protrusions on one first wall face portion and recessions and protrusions on an adjacent first wall face portion are positioned either (1) with the protrusions of each facing one another and the recessions of each facing one another or (2) with the protrusions of one of said wall face portions facing recessions of the other, and a second flat wall face portion located between each adjacent pair of undulated first wall face portions. Omura teaches only the formation of certain undulated walls to increase a contact area between gas and catalyst, but does not teach any specific arrangement of these walls.

Accordingly, the subject matter of each of claims 1, 4, 7, 10 and 16 are patentable over Omura and Gulati, and applicants respectfully request reconsideration and withdrawal of those grounds of rejection.

4. Claim 5 was rejected under 35 U.S.C. § 103(a) over JP '141 in view of Gulati '614, further in view of GB '640 and Maus et al. WO '876. Claims 6 and 18 were rejected under 35 U.S.C. § 103(a) over JP '141 in view of Gulati '614, further in view of JP '784. Claim 18 was rejected under 35 U.S.C. § 103(a) over JP '580 in view of Gulati '614, further in view of JP '784. And claims 11 and 17 were rejected under 35 U.S.C. § 103(a) over either JP '580 in view of Gulati '614 or JP '141 in view of Gulati '614 and JP '784, further in view of Abe et al. '119.

For the reasons already stated above herein with respect to JP '580, Gulati, and JP '141, none of the references in combination would have lead one of ordinary skill in the art to the subject matter claimed, an example of which is shown in applicants' Fig. 1(b). None of the primary or secondary references teaches the undulated walls according to claim 1.

5. Various tertiary references were cited allegedly to show particular details of claims 5, 6, 11, 17, and 18. The references, however, do not supply the deficiencies of the primary and secondary references as discussed in detail above. Thus, there is no disclosure or teaching in any of the references of record that would have suggested applicants' claimed invention to one of ordinary skill in this art. Further, there is no disclosure or teaching in any of the cited references, that would have suggested the desirability of combining any portions of those references effectively to anticipate or render obvious applicants' claimed invention.

Accordingly, all claims are patentable over the references of record, and applicants respectfully request reconsideration and withdrawal of all grounds of rejection.

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This application is now fully in condition for allowance. The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293 (Order No. 28953.7211). Should the Examiner feel that further amendments would place this application in even better condition for issue, the Examiner is invited to call applicants' undersigned attorney at the number listed below.

Respectfully submitted,

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